

KENTUCKY DEPARTMENT OF EDUCATION

STAFF NOTE

Action/Discussion Item:

Science Standards Update and Request for Support of the Environmental Literacy Plan

Applicable Statute or Regulation:

KRS 158.6453

Action Question:

Should the Kentucky Board of Education (KBE) support the Environmental Literacy Plan?

History/Background:

Existing Policy. A group of 20 states has been selected to lead an important effort to improve science education for all students. The 20 states will lead the development of Next Generation Science Standards (NGSS), a state-led effort that will clearly define the content and practices all students will need to learn from kindergarten through high school graduation. The NGSS process is being managed by Achieve, a non-partisan education non-profit organization. The Lead State Partners are Arizona, California, Georgia, Iowa, Kansas, Kentucky, Maine, Maryland, Massachusetts, Michigan, Minnesota, New Jersey, New York, Ohio, Rhode Island, South Dakota, Tennessee, Vermont, Washington and West Virginia.

In July, the National Research Council released *A Framework for K-12 Science Education*, developed by a committee representing expertise in science, teaching and learning, curriculum, assessment and education policy. Using the framework, the 20 Lead State Partners will guide the standards writing process, gather and deliver feedback from state-level committees and come together to address common issues and challenges. Each state had to agree to commit staff time to the initiative and, upon completion, give serious consideration to adopting the Next Generation Science Standards. In order to be considered, states had to submit a letter with the signature of the chief state school officer and the chair of the state board of education. Drafts of the science standards will be made available for public input at least two times during the NGSS development process. The Kentucky Department of Education (KDE) will provide updates through its newsletter and on the KDE website. The NGSS should be completed by the end of 2012. Environmental literacy is part of the discussion around the Next Generation Science Standards.

Recently proposed federal legislation, including the U.S. Department of Education's *A Blueprint for Reform: The Reauthorization of the Elementary and Secondary Education Act* (2010), explicitly states the need for environmental literacy attained through environmental education as one of the components of a well-rounded P-12 education. To assist with implementation of this proposed legislation, incentives in the form of new environmental education grant programs may

become available for states with environmental literacy plans. The Kentucky Environmental Literacy Plan (KELP) (Attachment A) has been created to ensure that graduates of Kentucky's P-12 education system will be environmentally literate.

The KELP is a joint undertaking between the Kentucky Environmental Education Council (KEEC) and the Kentucky Department of Education. Kentucky currently has some programs and policies in place to provide for environmental education, but in order to achieve P-12 environmental literacy, support is needed from stakeholders across the Commonwealth. The KELP is designed to provide this support.

In spring 2010, the Commissioner of Education appointed an environmental literacy plan task force that included stakeholders from across the state. After an introductory meeting, a working group representing KDE, KEEC, the Kentucky Association for Environmental Education (KAEE) and a variety of other formal and non-formal environmental education organizations began soliciting information and ideas from interested parties throughout the state. Using regional focus groups, presentations at state educator conferences, educator and administrator surveys, and individual conversations, the working group compiled information to draft Kentucky's Environmental Literacy Plan. A final draft of the plan was presented to the Environmental Literacy Plan Task Force for remaining revisions and approval. The public was given an opportunity to comment and suggest improvements, and those suggestions were incorporated into the current version of the document.

The seven goals of the KELP are:

GOAL 1: Identify specific content standards, content areas, and courses or subjects where instruction will take place.

GOAL 2: Incorporate requirements that will ensure high school graduates are environmentally literate.

GOAL 3: Provide programs for professional development of K-12 educators and administrators to improve their environmental content knowledge, skill in teaching about environmental issues, and field-based pedagogical skills while ensuring utilization of this information.

GOAL 4: Develop a system of assessments to measure the environmental literacy of Kentucky students.

GOAL 5: Secure funding and other necessary support for implementation of the KELP.

GOAL 6: KDE will encourage school districts to improve the sustainability of their buildings and grounds in order to use the facilities to improve student environmental literacy.

GOAL 7: KDE will encourage teachers and administrators to provide students with opportunities for positive interactions with the natural environment.

Staff Recommendation(s) and Rationale:

Staff recommends that the KBE support the Kentucky Environmental Literacy Plan in conjunction with the implementation of the next generation science standards. In 2009, the KBE approved Kentucky's participation in Partnership for 21st Century School work. Kentucky's action plan focuses on the development of 21st Century Skills. The work outlined in the KELP supports the work outlined in the action plan.

Impact on Getting to Proficiency:

Environmental Education as a thematic concept for teaching has shown to be highly effective in engaging students who previously have shown no interest in science or other academic subjects. Following the recommendations in the KELP has the potential to make the school experience more meaningful for disengaged students, thereby increasing the number of students who continue to work toward proficiency. It may also potentially awaken more students to the possibility of a career in the sciences.

Groups Consulted and Brief Summary of Responses:

Kentucky Environmental Education Council
Kentucky Green and Healthy Schools
Bluegrass PRIDE
East KY PRIDE
Kentucky NEED project
UK Environmental and Natural Resource Issues Task Force
National Park Service
Louisville Zoo
UK Extension Service
Kentucky Department of Fish and Wildlife
LG&E-KU
Kentucky Educational Professional Standards Boards
Kentucky Department of Parks
Kentucky Association for Gifted Education
K-12 teachers and administrators (through focus groups)
Kentucky Association for Environmental Education
General Public (through regional focus groups)
Directors of university environmental education centers
Informal educators from state environmental agencies
Kentucky Music Educators Association
Kentucky Education Association
Kentucky Geographic Alliance
Kentucky Parent Teacher Association
Kentucky Science Teachers Association
Kentucky Home Education Association

Contact Person:

Felicia Smith
Associate Commissioner
Office of Next Generation Learners
502-564-9850
Felicia.smith@education.ky.gov

Commissioner of Education

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